```
=> s (phosphodiesterase 7 or PDE 7) and dna
L1          11 (PHOSPHODIESTERASE 7 OR PDE 7) AND DNA

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2          10 DUP REM L1 (1 DUPLICATE REMOVED)

=> s l2 and human
L3           7 L2 AND HUMAN

=> d l3 1-7 ibib ab

L3   ANSWER 1 OF 7     MEDLINE on STN
ACCESSION NUMBER:   2002376869     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 12071709
TITLE:              Refolding and purification of recombinant human
                    PDE7A expressed in Escherichia coli as inclusion bodies.
AUTHOR:             Richter Wito; Hermsdorf Thomas; Kronbach Thomas; Dettmer
                    Dietrich
CORPORATE SOURCE:   Institute of Biochemistry, Medical Faculty, Institute of
                    Biochemistry, University of Leipzig, Liebigstrasse 16,
                    Leipzig, Germany.
SOURCE:             Protein expression and purification, (2002 Jun) Vol. 25,
                    No. 1, pp. 138-48.
                    Journal code: 9101496. ISSN: 1046-5928.
PUB. COUNTRY:       United States
DOCUMENT TYPE:      Journal; Article; (JOURNAL ARTICLE)
LANGUAGE:           English
FILE SEGMENT:       Priority Journals
ENTRY MONTH:        200212
ENTRY DATE:         Entered STN: 20020719
                    Last Updated on STN: 20021228
                    Entered Medline: 20021227
AB   We have investigated the refolding and purification of the catalytic
     domain of human 3',5'-cyclic nucleotide phosphodiesterase 7A1
     (PDE7A1) expressed in Escherichia coli.  A cDNA encoding an
     N-terminal-truncated PDE7A1(147-482-His) was amplified by RT-PCR from
     human peripheral blood cells and inserted into the vector pET21-C
     for bacterial expression of the enzyme fused to a C-terminal His-tag.  The
     PDE was found to be expressed in the form of inclusion bodies which could
     be refolded to an active enzyme in buffer containing high concentrations
     of arginine hydrochloride, ethylene glycol, and magnesium chloride at pH
     8.5.  The PDE7A1(147-482-His) construct could be purified after dialysis
     and concentration steps by either Zn2+-IDA-Sepharose chromatography or
     ResourceQ ion-exchange chromatography to homogeneity.  In comparison to
     the metal-chelate column, the ResourceQ purification resulted in a
     distinctly better yield and enrichment of the protein.  Both the Vmax
     (0.46 micromol. min(-1). mg(-1) ) and the K(m) (0.1 microM) of the
     purified enzyme were found to be comparable with published data for native
     or recombinant catalytically active expressed PDE7A1.  Using SDS/PAGE, a
     molecular mass of 39 kDa was determined (theoretical value 38.783 kDa).
     As known from several other mammalian PDEs, size-exclusion chromatography
     using refolded PDE7A1(147-482-His) indicated the formation of dimers.  The
     purified enzyme was soluble at concentrations up to 100 microg/ml.  A
     further increase of protein concentration resulted, however, in
     precipitation of the enzyme.
     Copyright 2002 Elsevier Science (USA).

L3   ANSWER 2 OF 7     MEDLINE on STN
ACCESSION NUMBER:   1998176136     MEDLINE
DOCUMENT NUMBER:    PubMed ID: 9515162
TITLE:              Differential distribution of rat PDE-7
                    mRNA in embryonic and adult rat brain.
AUTHOR:             Hoffmann R; Abdel'Al S; Engels P
CORPORATE SOURCE:   Novartis Pharma, Basel, Switzerland.
```

SOURCE: Cell biochemistry and biophysics, (1998) Vol. 28, No. 2-3, pp. 103-13.
Journal code: 9701934. ISSN: 1085-9195.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-U77880
ENTRY MONTH: 199804
ENTRY DATE: Entered STN: 19980422
Last Updated on STN: 19980422
Entered Medline: 19980416

AB Currently not much is known about the distribution and function of the phosphodiesterase type 7 (**PDE-7**) enzyme. Therefore, we carried out an extensive distribution analysis of the rat and **human PDE-7** by in situ hybridization as well as RT-PCR. We isolated a partial rat cDNA clone that is highly homologous to the sequence of the **human PDE-7** gene. RT-PCR tissue distribution analyses revealed expression of the mRNA of the **human** and rat-enzymes in most of the examined tissues, like adult heart, lung, brain, and liver, as well as in several cell lines of the immune system. In situ hybridization with the rat **PDE-7** showed a differential expression pattern during the late phases of the developing rat brain with higher levels of mRNA in cortical and telencephalic structures in d 16, 18, and 20 embryonic stages, whereas in adult rat brain, higher amounts of mRNA could only be detected in cerebellum and, to a lesser extent, in hippocampus and the olfactory system.

L3 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:77265 HCAPLUS
DOCUMENT NUMBER: 144:148374
TITLE: Diagnosis of pulmonary arterial hypertension and monitoring of therapy using gene expression analysis of peripheral blood cells
INVENTOR(S): Geraci, Mark W.; Bull, Todd M.; Voelkel, Norbert F.; Coldren, Christopher D.
PATENT ASSIGNEE(S): The Regents of the University of Colorado, USA
SOURCE: U.S. Pat. Appl. Publ., 38 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2006019272	A1	20060126	US 2005-122329		20050503
PRIORITY APPLN. INFO.:			US 2004-568129P	P	20040503

AB Disclosed are methods to diagnose a patient that has a pulmonary disease, and particularly, pulmonary arterial hypertension, using biomarkers that are differentially regulated in the peripheral blood cells of patients with such disease as compared to individuals that do not have the disease. Also disclosed are methods to diagnose a patient that has idiopathic pulmonary arterial hypertension as compared to pulmonary arterial hypertension assocd. with secondary causes. Pluralities of nucleotides and antibodies useful in the invention are described. Methods of identifying compds. with the potential to treat pulmonary arterial hypertension (PAH) are also described.

L3 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1242962 HCAPLUS
DOCUMENT NUMBER: 144:21256
TITLE: Gene expression profiles in the diagnosis of pancreatic cancer and its metastasis and

identification of target for therapy
INVENTOR(S): Nakamura, Yusuke; Katagiri, Toyomasa; Nakagawa, Hidewaki
PATENT ASSIGNEE(S): Oncotherapy Science, Inc., Japan; The University of Tokyo
SOURCE: U.S. Pat. Appl. Publ., 116 pp., Cont.-in-part of PCT/JP03/11817.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005260639	A1	20051124	US 2005-90739	20050324
WO 2004031412	A2	20040415	WO 2003-JP11817	20030917
WO 2004031412	A3	20040715		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:

US 2002-414872P	P	20020930
US 2003-450889P	P	20030228
WO 2003-JP11817	A2	20030917
US 2004-555809P	P	20040324

AB Objective methods for detecting and diagnosing pancreatic cancer (PNC) are described herein. In one embodiment, the diagnostic method involves detg. the expression level of PNC-assocd. gene that discriminates between PNC cells and normal cells. The present invention further provides methods of screening for therapeutic agents useful in the treatment of pancreatic cancer, methods of treating pancreatic cancer and method of vaccinating a subject against pancreatic cancer.

L3 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:713955 HCAPLUS
DOCUMENT NUMBER: 143:187909
TITLE: Methods of using databases to create gene-expression microarrays, equine and canine microarrays created thereby, and uses of the microarrays
INVENTOR(S): Bertone, Alicia; Gu, Weisong
PATENT ASSIGNEE(S): The Ohio State University, USA
SOURCE: PCT Int. Appl., 1475 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005067649	A2	20050728	WO 2005-XA517	20050107

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

WO 2005067649 A2 20050728 WO 2005-US517 20050107

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-535111P P 20040108
WO 2005-US517 A 20050107

AB Methods of prepg. biol. databases, and databases prepd. according to those methods. The methods can be performed entirely using computer resources, relying solely on publicly available biol. sequence information, and can be used to generate species-specific nucleic acid microarrays. The approach involves two major steps: identification of the 3' coding domains (CDSs) and 3' expressed sequence tags (ESTs) in public domain sequence databases and subsequent annotation of the sequences. For the algorithm using 20,022 equine sequences in GenBank (June, 2003), the 3' equine CDSs are identified by selecting the full and partial CDSs that have a stop codon at the 3' end. This approach ensures that sequences selected are anchored to the 3' end; most contain the 3' untranslated region (UTR), which is more species-specific, compared with the coding region. Use of the UTR sequence in probe design is an asset for improvement of microarray accuracy. An algorithm analyzes the partial equine CDSs and ESTs with those in a **human**-mouse CDS database (a subset of the GenBank nonredundant database) in order to provide annotation to the selected 3' equine sequences. A total of 3099 equine 3' coding sequences and 3' ESTs are selected for the equine-specific gene expression array, and 68,266 oligonucleotide probes designed according to Affymetrix's chip design guide. Microarray anal. identified genes expressed in equine synoviocytes in the absence and presence of lipopolysaccharide, as well as differentially expressed genes in developmental orthopedic disease (osteochondrosis desiccans and cervical vertebral malformation), equine osteoarthritis, equine protozoal myelitis, herpes virus-1 infection, potentially compromising stress, and laminitis in horses. Analogous methods are used to generate a canine-specific microarray to detect gene expression during osteoarthritis in dogs. [This abstr. record is one of two records for this document necessitated by the large no. of index entries required to fully index the document and publication system constraints.].

L3 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:577303 HCAPLUS
DOCUMENT NUMBER: 139:256159
TITLE: Functional characterization of the **human** phosphodiesterase 7A1 promoter
AUTHOR(S): Torras-Llort, Monica; Azorin, Fernando
CORPORATE SOURCE: Institut de Biologia Molecular de Barcelona, Departament de Biologia Molecular i Cellular, CSIC, Barcelona, 08034, Spain
SOURCE: Biochemical Journal (2003), 373(3), 835-843
CODEN: BIJOAK; ISSN: 0264-6021
PUBLISHER: Portland Press Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this paper, the **human** phosphodiesterase 7A1 (h PDE7A1) promoter region was identified and functionally characterized. Transient

transfection expts. indicated that a 2.9 kb fragment of the h PDE7A1 5'-flanking region, to position -2907, has strong promoter activity in Jurkat T-cells. Deletion anal. showed that the proximal region, up to position -988, contains major cis -regulatory elements of the h PDE7A1 promoter. This minimal promoter region contains a regulatory CpG island which is essential for promoter activity. The CpG island contains three potential cAMP-response-element-binding protein (CREB)-binding sites that, as judged by in vivo di-Me sulfate (DMS) footprinting, are occupied in Jurkat T-cells. Moreover, over-expression of CREB results in increased promoter activity, but, on the other hand, promoter activity decreases when a dominant-neg. form of CREB (KCREB) is over-expressed. In vivo DMS footprinting strongly indicates that other transcription factors, such Ets-2, nuclear factor of activated T-cells 1 (NFAT-1) and nuclear factor .kappa.B (NF-.kappa.B), might also contribute to the regulation of h PDE7A1 promoter. Finally, h PDE7A1 promoter was found to be induced by treatment with PMA, but not by treatment with dibutyryl cAMP or forskolin. These results provide insights into the factors and mechanisms that regulate expression of the h PDE7A gene.

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 7 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:90160 BIOSIS

DOCUMENT NUMBER: PREV200500084701

TITLE: Discovery of BRL 50481 (3-(N,N-dimethylsulfonamido)-4-methyl-nitrobenzene), a selective inhibitor of **phosphodiesterase** 7: In vitro studies in **human** monocytes, lung macrophages, and CD8+ T-lymphocytes.

AUTHOR(S): Smith, Susan J.; Cieslinski, Lenora B.; Newton, Robert; Donnelly, Louise E.; Fenwick, Peter S.; Nicholson, Andrew G.; Barnes, Peter J.; Barnette, Mary S.; Giembycz, Mark A. [Reprint Author]

CORPORATE SOURCE: Dept Pharmacol and TherapeutResp Res Grp, Univ Calgary, 3330 Hosp Dr NW, Calgary, AB, T2N 4N1, Canada giembycz@ucalgary.ca

SOURCE: Molecular Pharmacology, (December 2004) Vol. 66, No. 6, pp. 1679-1689. print.
ISSN: 0026-895X (ISSN print).

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 2 Mar 2005
Last Updated on STN: 2 Mar 2005

AB The biochemical and pharmacological characteristics in **human** proinflammatory cells of BRL 50481 (3-(N, N-dimethylsulfonamido)-4-methyl-nitrobenzene), a novel and selective inhibitor of phosphodiesterase (**PDE**) 7, are described. BRL 50481 inhibited the activity of hrPDE7A1 expressed in baculovirus-infected Spodoptera frugiperda 9 cells in a competitive manner (Ki value of 180 nM) and was 416 and 1884 times less potent against PDE3 and 38 and 238 times less potent against PDE4 at a substrate concentration of 1 muM and 50 nM cAMP, respectively. Western blotting identified HSPDE7A1 but not HSPDE7A2 in three **human** cell types that are implicated in the pathogenesis of chronic obstructive lung disease, namely, CD8+ T-lymphocytes, monocytes, and lung macrophages. BRL 50481 had no effect on the proliferation of CD8+ T-lymphocytes and only marginally (apprx 2 - 11%) reduced the generation of tumor necrosis factor (TNF)alpha from blood monocytes and lung macrophages. However, in the presence of BRL 50481 the inhibitory effect of rolipram was enhanced on all three cell types. The expression of HSPDE7A1 was increased in a time-dependent manner in monocytes that were "aged" in culture medium. Under this condition, BRL 50481 now inhibited TNFalpha generation in a concentration-dependent manner. In aged monocytes, rolipram, Org 9935 (a PDE3 inhibitor), and prostaglandin E2 inhibited TNFalpha generation in a concentration-dependent manner and interacted additively with BRL 50481. BRL 50481 is

the first fully documented PDE7 inhibitor that has acceptable selectivity for in vitro studies. Furthermore, although BRL 50481 had only a modest inhibitory effect per se on the proinflammatory cells studied, it acted at least additively with other cAMP-elevating drugs, especially when HSPDE7A1 was up-regulated.

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=> d his

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     FILE 'MEDLINE, HCAPLUS, BIOSIS' ENTERED AT 11:56:04 ON 31 MAR 2006
L1            11 S (PHOSPHODIESTERASE 7 OR PDE 7) AND DNA
L2            10 DUP REM L1 (1 DUPLICATE REMOVED)
L3             7 S L2 AND HUMAN

=> log y
COST IN U.S. DOLLARS                            SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                21.18      21.39

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)      SINCE FILE      TOTAL
                                                   ENTRY    SESSION
CA SUBSCRIBER PRICE                                -3.00      -3.00

STN INTERNATIONAL LOGOFF AT 11:59:00 ON 31 MAR 2006
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WEST Search History

Hide Items | Restore | Clear | Cancel

DATE: Friday, March 31, 2006

Hide?	Set Name	Query	Hit Count
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☐	L8	L7 and l6	28
☐	L7	435/196.ccls.	1352
☐	L6	L5 and human	67
☐	L5	PDE isozyme and dna	67
☐	L4	PDE isozyme	322
☐	L3	PDE 7 isozyme	1
	DB=USPT; PLUR=YES; OP=ADJ		
☐	L2	PDE7 isozyme	0
☐	L1	5527896	15

END OF SEARCH HISTORY

Hit List

First Hit Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 10 of 28 returned.

☐ 1. Document ID: US 20050196833 A1

Using default format because multiple data bases are involved.

L8: Entry 1 of 28 File: PGPB Sep 8, 2005

PGPUB-DOCUMENT-NUMBER: 20050196833
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050196833 A1

TITLE: Cyclic GMP-binding, cyclic GMP-specific phosphodiesterase materials and methods

PUBLICATION-DATE: September 8, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Beavo, Joseph A.	Seattle	WA	US
Corbin, Jackie D.	Nashville	TN	US
Ferguson, Kenneth M.	Bothell	WA	US
Francis, Sharron H.	Nashville	TN	US
Kadlecek, Ann	Madison	CT	US
McAllister-Lucas, Linda M.	Ann Arbor	MI	US
Loughney, Kate	Seattle	WA	US
Sonnenburg, William K.	Spring	TX	US
Thomas, Melissa K.	Boston	MA	US

US-CL-CURRENT: 435/69.1; 435/196, 435/320.1, 435/325, 514/252.16, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWMC | Draw Desc | Image

☐ 2. Document ID: US 20050142127 A1

L8: Entry 2 of 28 File: PGPB Jun 30, 2005

PGPUB-DOCUMENT-NUMBER: 20050142127
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050142127 A1

TITLE: Isolated human phosphodiesterase proteins, nucleic acid molecules encoding human phosphodiesterase proteins, and uses thereof

PUBLICATION-DATE: June 30, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Wei, Ming-Hui	Germantown	MD	US

Wang, Xin	Bethesda	MD	US
Merkulov, Gennady V.	Baltimore	MD	US
Di Francesco, Valentina	Rockville	MD	US
Beasley, Ellen M.	Darnestown	MD	US

US-CL-CURRENT: 424/94.6; 435/196, 435/320.1, 435/325, 435/6, 435/69.1, 514/252.16, 530/388.26, 536/23.2, 800/8

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 3. Document ID: US 20050048525 A1

L8: Entry 3 of 28 File: PGPB Mar 3, 2005

PGPUB-DOCUMENT-NUMBER: 20050048525
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050048525 A1

TITLE: Phosphodiesterase enzymes

PUBLICATION-DATE: March 3, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fidock, Mark D.	Sandwich		GB

US-CL-CURRENT: 435/6; 435/196, 435/320.1, 435/325, 435/69.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20040137508 A1

L8: Entry 4 of 28 File: PGPB Jul 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040137508
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040137508 A1

TITLE: Enzyme PDE XVI

PUBLICATION-DATE: July 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fidock, Mark D.	Sandwich		GB

US-CL-CURRENT: 435/6; 435/196, 435/320.1, 435/325, 435/69.1, 435/7.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 20040073020 A1

L8: Entry 5 of 28 File: PGPB Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040073020
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040073020 A1

TITLE: Novel human phosphodiesterase IV isozymes

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fisher, Douglas A.	Mystic	CT	US
Robbins, Michael D.	East Lyme	CT	US

US-CL-CURRENT: 536/23.2; 435/196, 435/320.1, 435/325, 435/6, 435/69.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 20040073019 A1

L8: Entry 6 of 28 File: PGPB Apr 15, 2004

PGPUB-DOCUMENT-NUMBER: 20040073019
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040073019 A1

TITLE: Novel human phosphodiesterase IV isozymes

PUBLICATION-DATE: April 15, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fisher, Douglas A.	Mystic	CT	US
Robbins, Michael D.	East Lyme	CT	US

US-CL-CURRENT: 536/23.2; 435/196, 435/320.1, 435/325, 435/6, 435/69.1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 20040038208 A1

L8: Entry 7 of 28 File: PGPB Feb 26, 2004

PGPUB-DOCUMENT-NUMBER: 20040038208
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040038208 A1

TITLE: Novel human phosphodiesterase IV isozymes

PUBLICATION-DATE: February 26, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Fisher, Douglas A.	New York	NY	US
Robbins, Michael D.	New York	NY	US

US-CL-CURRENT: 435/6; 435/196, 435/320.1, 435/325, 435/69.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 8. Document ID: US 20020151024 A1

L8: Entry 8 of 28 File: PGPB Oct 17, 2002

PGPUB-DOCUMENT-NUMBER: 20020151024
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020151024 A1

TITLE: DNA encoding mammalian phosphodiesterases

PUBLICATION-DATE: October 17, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Beavo, Joseph A.	Seattle	WA	US
Bentley, J. Kelley	Seattle	WA	US
Charbonneau, Harry	West Lafayette	IN	US
Sonnenburg, William K.	Mountlake Terrace	WA	US

US-CL-CURRENT: 435/196; 435/320.1, 435/325, 435/69.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 20020086810 A1

L8: Entry 9 of 28 File: PGPB Jul 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020086810
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020086810 A1

TITLE: Isolated human phosphodiesterase proteins, nucleic acid molecules encoding human phosphodiesterase proteins, and uses thereof

PUBLICATION-DATE: July 4, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Guegler, Karl	Menlo Park	CA	US
Brandon, Rhonda C.	Laytonsville	MD	US
Di Francesco, Valentina	Rockville	MD	US
Beasley, Ellen M.	Darnestown	MD	US

US-CL-CURRENT: 514/1; 435/196, 435/325, 435/6, 435/69.1, 435/7.1, 536/23.2, 800/8

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Drawi Desc | Image

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☐ 10. Document ID: US 20020068351 A1

L8: Entry 10 of 28 File: PGPB Jun 6, 2002

PGPUB-DOCUMENT-NUMBER: 20020068351
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020068351 A1

TITLE: Human brain phosphodiesterase

PUBLICATION-DATE: June 6, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Livi, George P.	Havertown	PA	US
McLaughlin, Megan M.	Drexel Hill	PA	US
Torphy, Theodore J.	Bryn Mawr	PA	US

US-CL-CURRENT: 435/196; 435/320.1, 435/325, 435/69.1, 435/7.92, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Drawi Desc | Image

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☐ 1. Document ID: US 6914133 B2

L1: Entry 1 of 15 File: USPT Jul 5, 2005

US-PAT-NO: 6914133
DOCUMENT-IDENTIFIER: US 6914133 B2

TITLE: Human phosphodiesterase IV isozymes

DATE-ISSUED: July 5, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fisher; Douglas A.	Mystic	CT		
Robbins; Michael D.	East Lyme	CT		

US-CL-CURRENT: 536/23.1; 435/6, 536/24.3, 536/24.31, 536/24.32, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 6838559 B2

L1: Entry 2 of 15 File: USPT Jan 4, 2005

US-PAT-NO: 6838559
DOCUMENT-IDENTIFIER: US 6838559 B2

TITLE: Purine inhibitors of phosphodiesterase (PDE) 7

DATE-ISSUED: January 4, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vaccaro; Wayne	Yardley	PA		
Roberge; Jacques Y.	Princeton	NJ		
Leftheris; Katerina	Skillman	NJ		
Pitts; William J.	Newtown	PA		
Barbosa; Joseph	Lambertville	NJ		

US-CL-CURRENT: 540/575; 544/118, 544/276, 544/277

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6812239 B2

L1: Entry 3 of 15 File: USPT Nov 2, 2004

US-PAT-NO: 6812239
DOCUMENT-IDENTIFIER: US 6812239 B2

TITLE: Method of identification of inhibitors of PDE1C and methods of treatment of diabetes

DATE-ISSUED: November 2, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michaeli; Tamar H.	Bronx	NY		

US-CL-CURRENT: 514/359; 514/866

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 6479493 B1

L1: Entry 4 of 15 File: USPT Nov 12, 2002

US-PAT-NO: 6479493
DOCUMENT-IDENTIFIER: US 6479493 B1

TITLE: Methods for treatment of type I diabetes

DATE-ISSUED: November 12, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Whitehead; Clark M.	Warminster	PA		
Earle; Keith A.	North Wales	PA		
Alila; Hector W.	North Wales	PA		
Thompson; W. Joseph	Doylestown	PA		

US-CL-CURRENT: 514/241; 514/252.1, 514/255.06, 514/307, 514/311, 514/357, 514/365, 514/381, 514/394, 514/400, 514/406, 514/419, 514/427, 514/461, 514/866

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6417208 B1

L1: Entry 5 of 15 File: USPT Jul 9, 2002

US-PAT-NO: 6417208
DOCUMENT-IDENTIFIER: US 6417208 B1

TITLE: Method of identification of inhibitors of PDE1C

DATE-ISSUED: July 9, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Michaeli; Tamar H.	Bronx	NY		

US-CL-CURRENT: 514/359; 435/14, 435/196, 435/199, 435/252.3, 435/325, 435/354, 435/372.2, 435/377, 435/6, 435/7.71, 514/866

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 6323041 B1

L1: Entry 6 of 15 File: USPT Nov 27, 2001

US-PAT-NO: 6323041
DOCUMENT-IDENTIFIER: US 6323041 B1

TITLE: Screening novel human phosphodiesterase IV isozymes for compounds which modify their enzymatic activity

DATE-ISSUED: November 27, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fisher; Douglas A.	New York	NY		
Robbins; Michael D.	New York	NY		

US-CL-CURRENT: 436/501; 435/183, 435/19, 435/196, 435/4, 435/455, 435/7.1, 536/23.1, 536/23.2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 6242211 B1

L1: Entry 7 of 15 File: USPT Jun 5, 2001

US-PAT-NO: 6242211
DOCUMENT-IDENTIFIER: US 6242211 B1

TITLE: Methods for generating and screening novel metabolic pathways

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Peterson; Todd C.	Coronado	CA		
Brian; Paul	San Diego	CA		

US-CL-CURRENT: 435/41; 435/320.1, 435/463, 435/468, 435/477, 435/91.41, 435/91.52, 536/23.5, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 8. Document ID: US 6146876 A

L1: Entry 8 of 15 File: USPT Nov 14, 2000

US-PAT-NO: 6146876
DOCUMENT-IDENTIFIER: US 6146876 A
** See image for Certificate of Correction **

TITLE: 22025, a novel human cyclic nucleotide phosphodiesterase

DATE-ISSUED: November 14, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Robision; Keith E.	Wilmington	MA		
Kapeller-Libermann; Rosana	Chestnut Hill	MA		
White; David	Holbrook	MA		

US-CL-CURRENT: 435/243; 435/252.3, 435/320.1, 536/23.2, 536/23.5, 536/24.31

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

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☐ 9. Document ID: US 6100025 A

L1: Entry 9 of 15 File: USPT Aug 8, 2000

US-PAT-NO: 6100025
DOCUMENT-IDENTIFIER: US 6100025 A
** See image for Certificate of Correction **

TITLE: Cloning by complementation and related processes

DATE-ISSUED: August 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wigler; Michael H.	Lloyd Harbor	NY		
Colicelli; John J.	Los Angeles	CA		

US-CL-CURRENT: 435/6; 435/174, 435/252.3, 435/320.1, 435/91.2, 536/23.1, 536/24.3, 536/24.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw. Desc | Image

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☐ 10. Document ID: US 6069240 A

L1: Entry 10 of 15 File: USPT May 30, 2000

US-PAT-NO: 6069240
DOCUMENT-IDENTIFIER: US 6069240 A
** See image for Certificate of Correction **

TITLE: Cloning by complementation and related processes